CLAIM AMENDMENT

Please amend the claims in accordance with the following listing.

Listing of Claims:

1. (Currently Amended): A method of controlling a contention state for a communication link between a base station controller and customer premises equipment in point-to-multipoint communication, comprising the step of:

controlling the contention state using a state machine with a plurality of states, the state machine including a grant pending absent state in which the customer premises equipment is polled with a unicast request slot, wherein during the grant pending absent state, the customer premises equipment sends no upstream data to the base station controller but can use the unicast request slot to request a data slot for sending upstream data to the base station controller, and a grant pending state in which the customer premises equipment awaits and receives grant of the data slot for sending upstream data to the base station controller and sends upstream data to the base station controller after grant of the data slot, wherein the state machine enters the grant pending absent state after the customer premises equipment has sent upstream data to the base station controller in the grant pending state.

2. (Original): A method as in claim 1, wherein the state machine further includes an idle state in which the customer premises equipment awaits arrival of data packets to send as upstream data to the base station controller.

3. (Original): A method as in claim 2, wherein the state machine further includes a deferring state in which the customer premises equipment requests grant of a data slot for

sending upstream traffic to the base station controller and if necessary defers contending for the data slot so as to avoid collisions with other customer premises equipment.

4. (Canceled).

4 ~~5~~. (Currently Amended): A method as in claim ~~4~~, 3, wherein in the grant pending state, the customer premises equipment uses piggybacking to request grant of a next data slot while sending upstream data to the base station controller.

5 ~~6~~. (Currently Amended): A method as in claim 4 ~~5~~, wherein the state machine enters the deferring state upon arrival of data packets to send as upstream data to the base station controller,

wherein the state machine enters the grant pending state after the deferring state, returns to the deferring state if a collision occurs, and remains in the grant pending state when sending upstream data to the base station controller with piggybacking~~, and~~

~~wherein the state machine enters the grant pending absent state after the customer premises equipment has sent upstream data to the base station controller in the grant pending state~~.

6 ~~7~~. (Original): A method as in claim 5 ~~6~~, wherein the state machine further includes an unsolicited grant pending state in which the customer premises equipment receives grant of the data slot for sending upstream data to the base station controller and sends upstream data to the base station controller after grant of the data slot, without having requested the data slot.

7 ~~8~~. (Original): A method as in claim 6 ~~7~~, wherein the state machine further includes an unsolicited grant pending absent state in which the customer premises equipment is polled with the unicast request slot,

wherein during the unsolicited grant pending absent state, the customer premises equipment sends no upstream data to the base station controller but can use the unicast request slot to request the data slot for sending upstream data to the base station controller, and

wherein the state machine enters the unsolicited grant pending absent state after the customer premises equipment has sent upstream data to the base station controller in the unsolicited grant pending state.

8 ~~9~~. (Currently Amended): Customer premises equipment that communicates over a communication link with a base station controller in point-to-multipoint communication, comprising:

a transceiver, and

a controller that controls a contention state for communicating over the communication link via the transceiver, the controller using a state machine with a plurality of states for controlling the contention state, the state machine including a grant pending absent state in which the customer premises equipment is polled with a unicast request slot, wherein during the grant pending absent state, the customer premises equipment sends no upstream data to the base station controller but can use the unicast request slot to request a data slot for sending upstream data to the base station controller, and a grant pending state in which the customer premises equipment awaits and receives grant of the data slot for sending upstream data to the base station controller and sends upstream data to the base station controller after grant of the data slot, and wherein the state machine enters the grant pending absent state after the customer premises equipment has sent upstream data to the base station controller in the grant pending state.

9 ~~10~~. (Original): Customer premises equipment as in claim 8 ~~9~~, wherein the state machine further includes an idle state in which the customer premises equipment awaits arrival of data packets to send as upstream data to the base station controller.

10 ~~11~~. (Original): Customer premises equipment as in claim ~~10~~ 9, wherein the state machine further includes a deferring state in which the customer premises equipment requests grant of a data slot for sending upstream traffic to the base station controller and if necessary defers contending for the data slot so as to avoid collisions with other customer premises equipment.

12. (Canceled).

11 ~~13~~. (Currently Amended): Customer premises equipment as in claim ~~12, 11,~~ 10 wherein in the grant pending state, the customer premises equipment uses piggybacking to request grant of a next data slot while sending upstream data to the base station controller.

12 ~~14~~. (Currently Amended): Customer premises equipment as in claim ~~12~~ 11, wherein the state machine enters the deferring state upon arrival of data packets to send as upstream data to the base station controller,

wherein the state machine enters the grant pending state after the deferring state, returns to the deferring state if a collision occurs, and remains in the grant pending state when sending upstream data to the base station controller with piggybacking~~, and~~

~~wherein the state machine enters the grant pending absent state after the customer premises equipment has sent upstream data to the base station controller in the grant pending state~~.

13 ~~15~~. (Original): Customer premises equipment as in claim ~~14~~ 12, wherein the state machine further includes an unsolicited grant pending state in which the customer premises equipment receives grant of the data slot for sending upstream data to the base station controller and sends upstream data to the base station controller after grant of the data slot, without having requested the data slot.

14 ~~16~~. (Original): Customer premises equipment as in claim ~~15~~ 13, wherein the state machine further includes an unsolicited grant pending absent state in which the customer premises equipment is polled with the unicast request slot,

wherein during the unsolicited grant pending absent state, the customer premises equipment sends no upstream data to the base station controller but can use the unicast request slot to request the data slot for sending upstream data to the base station controller, and

wherein the state machine enters the unsolicited grant pending absent state after the customer premises equipment has sent upstream data to the base station controller in the unsolicited grant pending state.

15 ~~17~~. (New): A method as in claim 1, wherein the plurality of states comprises states in which the customer premises equipment is not polled with the unicast request slot.

16 ~~18~~. (New): Customer premises equipment as in claim ~~9~~ 8, wherein the plurality of states comprises states in which the customer premises equipment is not polled with the unicast request slot.